

FIG. 1a

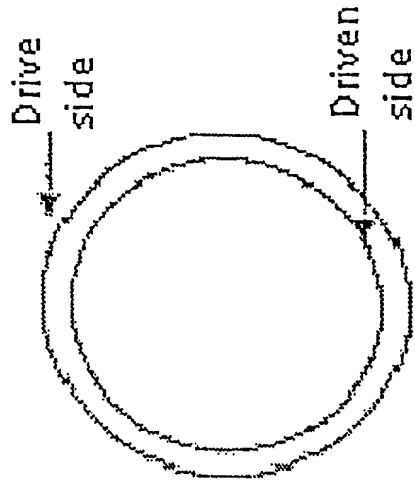


FIG. 1b

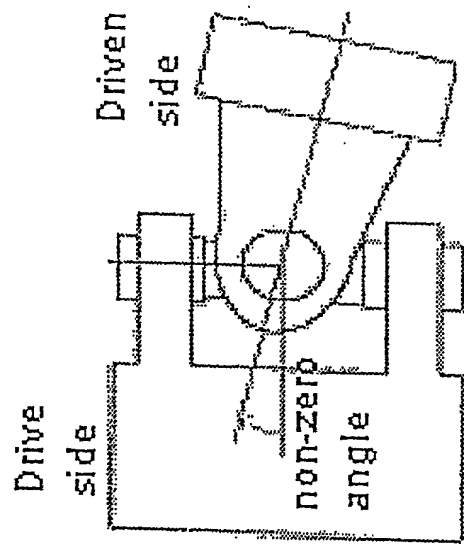


FIG. 2a

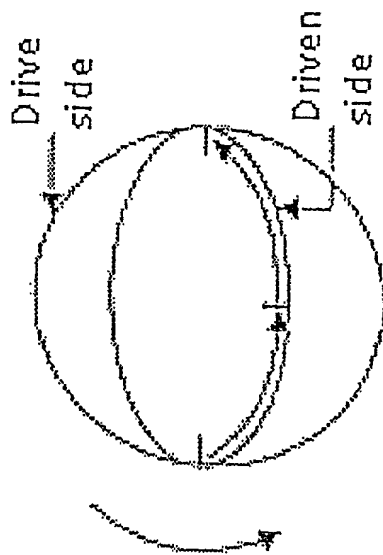


FIG. 2b

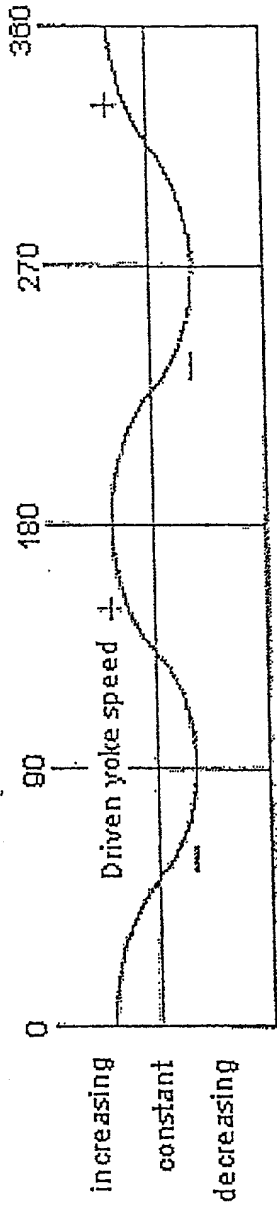


FIG. 3

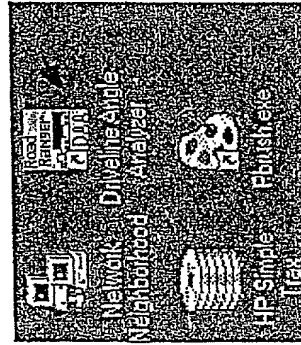


FIG. 4

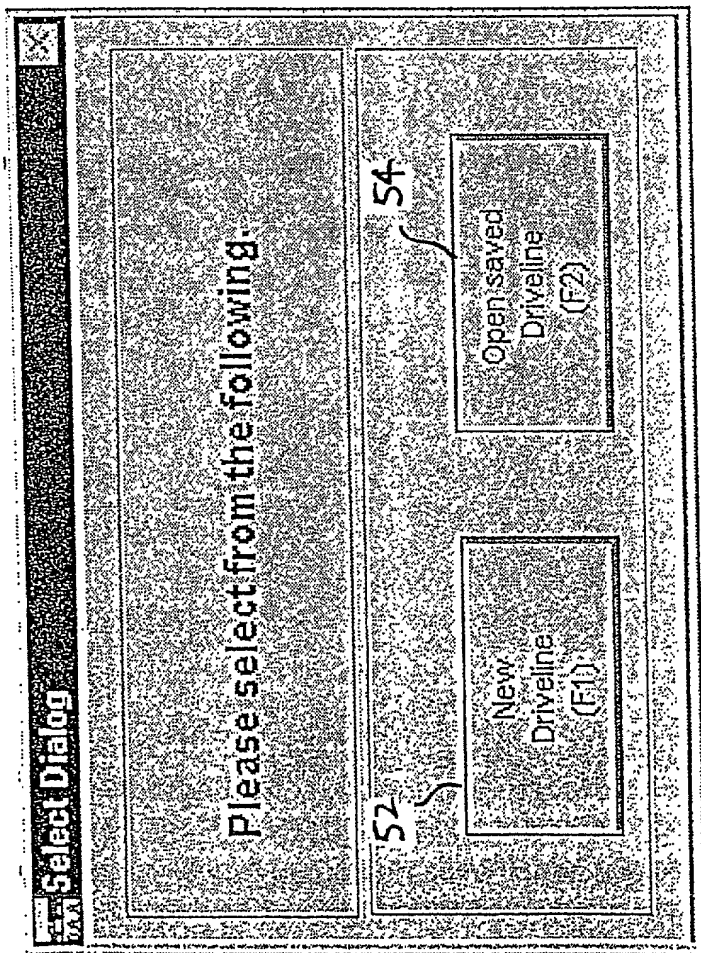


FIG. 5

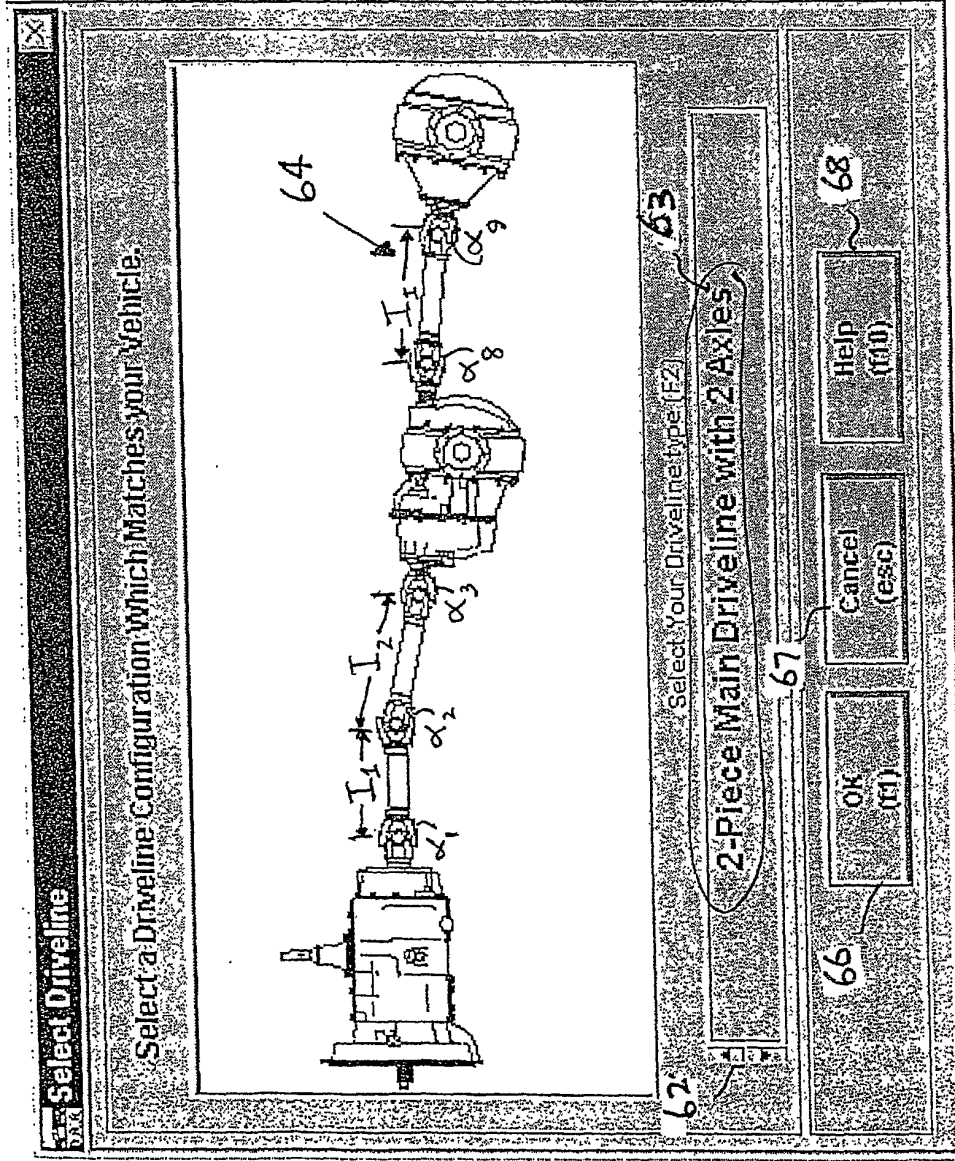


FIG. 6

70 →

DriveLine Angle Analyzer

File Help

Enter Vehicle Information

Note: Part numbers are required for initial calculations.

Truck Unit # (F-1):

Fleet Name:

Fleet Account #:

Truck Manufacturer:

Truck Model:

VIN #:

Trans. Model #:

Trans. Serial #:

Clutch Manufacturer:

Clutch Size:

Comments:

of Clutch Springs:

Clutch Part #:

Engine Make/Model #:

Wheel Base:

Steer Axle Tire Size:

Drive Axle Tire Size:

Main DriveLine Series:

< Select a DriveLine Series >

Interable DriveLine Series:

< Select a DriveLine Series >

Axle Manufacturer:

< Select Axle Manufacturer >

Differential Serial #:

Rearend Serial #:

Vehicle Mileage:

Vehicle Build Date:

Tested By:

79

71

72

73

74

75

76

77

78

New DriveLine F2

Open F3

Save F4

Print Worksheet F5

Information F6

Measurements F7

Enter Results

Directions F8

Help F9

Exit DriveLine F10

FIG. 7

Worksheet

DriveLine Angle Analyzer

Before measuring Angles:

- Click front and rear wheels
- Place trans in NEUTRAL
- Release parking brake

Measurement Directions:

To measure Driveline Length: All drive shaft angles are measured from the yoke end clockwise.

To measure Component Angles: For max angle (+) - The end closest to the motor on the table is higher than the end furthest from the motor on the table.

To check Driveline Phasing: Orient the plate & Zero degrees when the yoke ends are aligned

Drive line plate is 90 degrees when the yoke ends are misaligned

2-Piece Main with 2Axles

Front Angle: deg

#1 Prop shaft Angle: deg Length: in Plate (click out) Deg: S/Deg:

#2 Prop shaft Angle: deg Length: in Plate (click out) Deg: S/Deg:

#1 Prop shaft Angle: deg Length: in Plate (click out) Deg: S/Deg:

D-Head Angle: deg

R-Head Angle: deg

Trans Angle: deg

| Main Driveline Series | | To be filled by | |
|-----------------------|----------------------|-------------------|----------------------------|
| Truck Unit # | Chassis Manufacturer | Chassis Year | Max engine RPM in top gear |
| First Name | Chassis Serial # | Auto Manufacturer | Top gear ratio of front |
| First Account # | Chassis Description | Auto Model # | |
| Truck Manufacturer | Engine Type | D-Head Serial # | |
| Truck Model | Vehicle Data | R-Head Serial # | |
| VIN # | Year Auto Title # | | |
| Trans Model # | Drive Auto Title # | | |
| Trans Serial # | | | |

Print

Cancel

Esc

FIG. 8

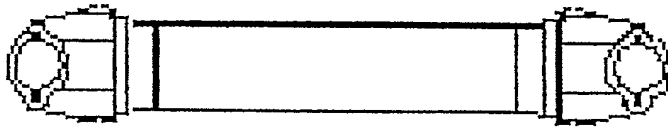


FIG. 9a

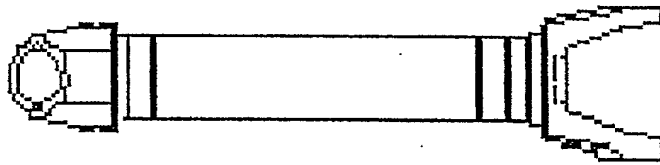


FIG. 9b

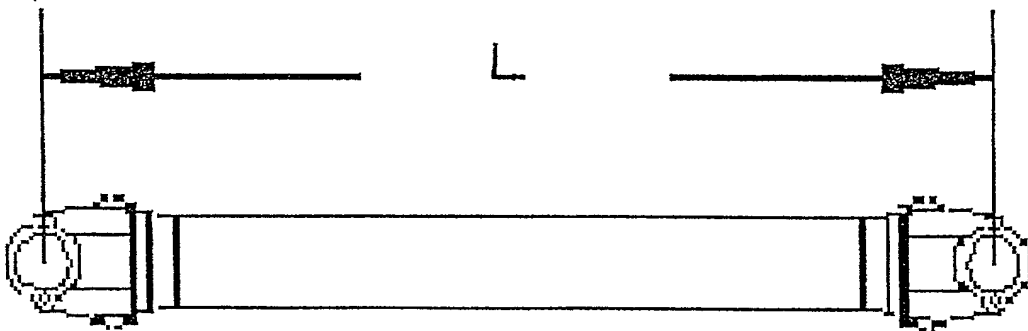


FIG. 10

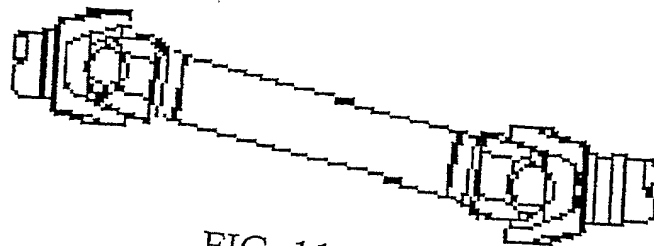


FIG. 11a

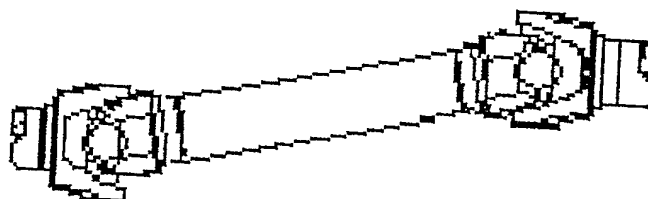


FIG. 11b

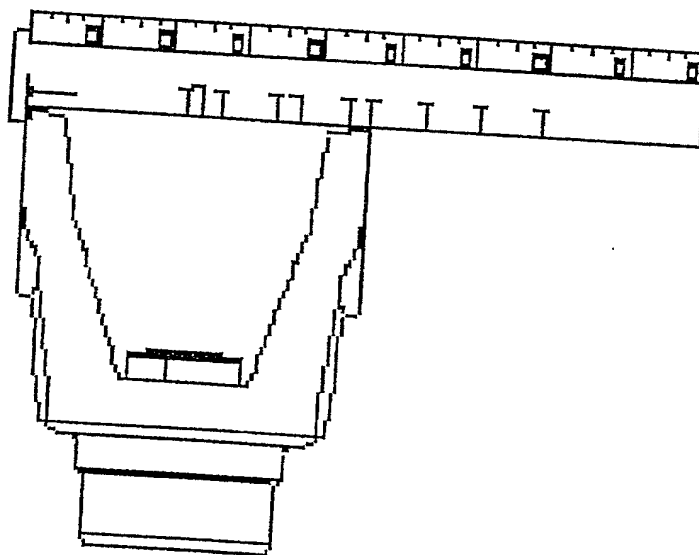


FIG. 12

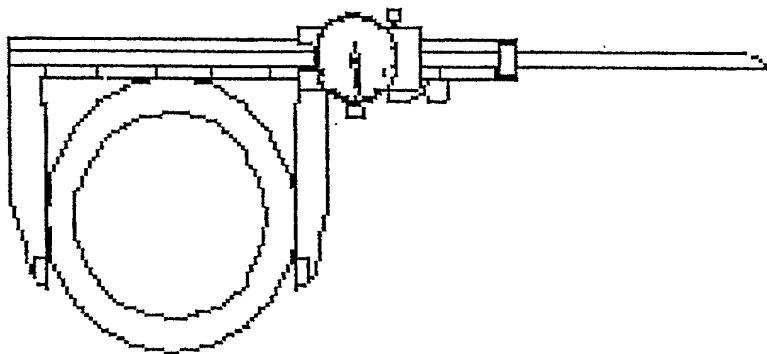


FIG. 13

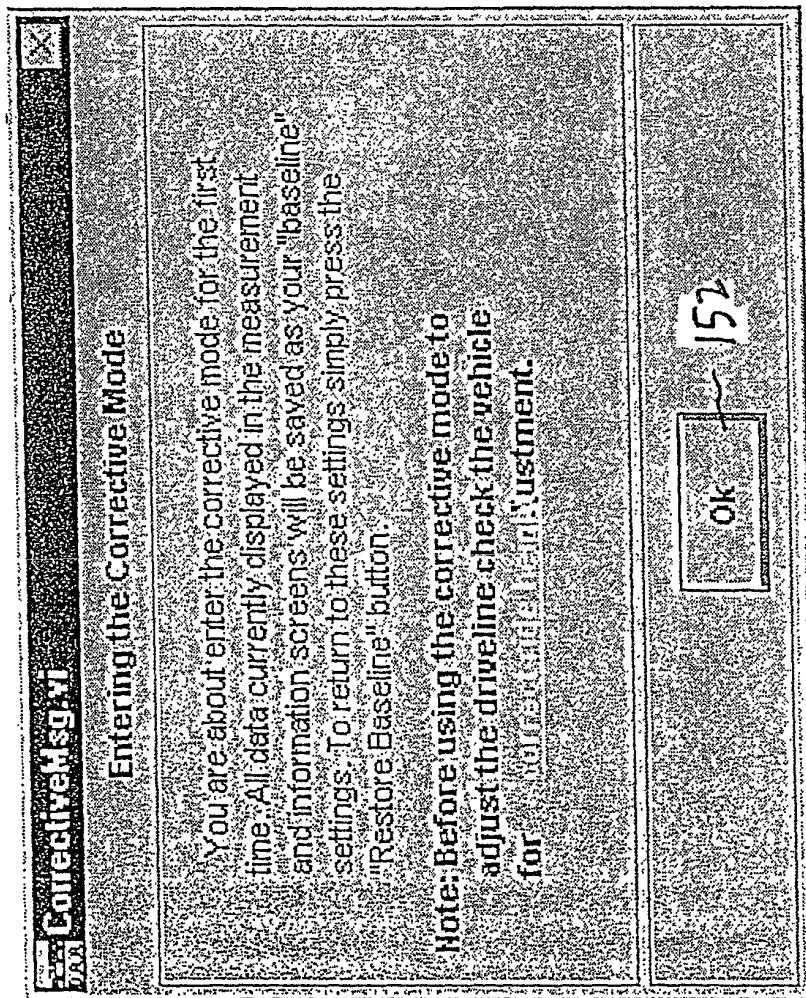


FIG. 15

DriveLine Angle Analyzer

File Help

2-Piece Main DriveLine with 2 Axes

Trans

+10deg

#1 Prop Shaft

-3.0deg Dpl

#2 Prop Shaft

+3.0deg Dpl

Dhead

-3.0deg

#3 Prop Shaft

+23.3deg Dpl

Phead

+7.0deg

Max DriveLine RPM: 2100.00 RPM

Drive Inertias:

Coast Inertias:

Trans to D head: 235.741 rad/sec²

D head to R head: 178.866 rad/sec²

Overall: 248.49 rad/sec²

Good

Angles

Frame Angle: 0.00

Transmission: 3.00

#1 Prop Shaft: -3.00

#2 Prop Shaft: 3.00

D head Axle: -3.00

Inter Axle Shaft: 22.27

R head Axle: 7.00

Length (in)

Frame Length: 24.00

Transmission Length: 4.00

#1 Prop Shaft Length: 4.00

#2 Prop Shaft Length: 4.00

D head Axle Length: 4.00

Inter Axle Shaft Length: 4.00

R head Axle Length: 4.00

Air Bag Height

Front Ride Height: 0.00

Back Ride Height: 0.00

Red Fields are required for head calculations

Max Engine RPM in Top Gear: 2100

Top Gear Ratio of Transmission: 1.00

Comments

The user would then enter all the measurements enter on the worksheet into this screen.

Correlative Mode

Save

Print Worksheet

Measurements

Restore Baseline

Print Results

Directions

Help

Exit DAA

FIG. 16

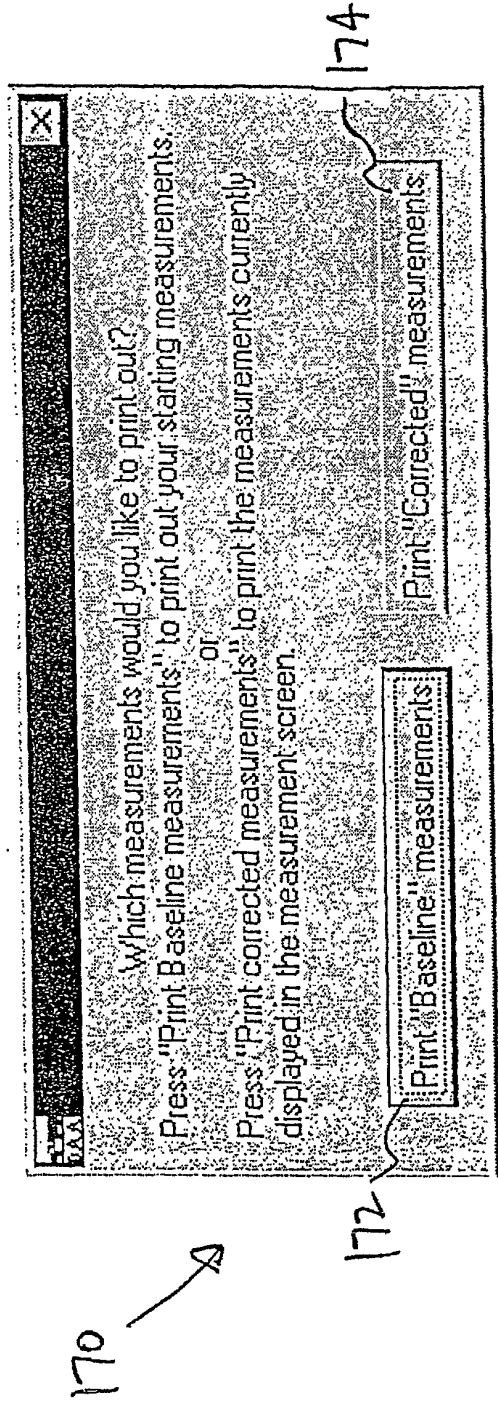



FIG. 17

Print Results


Roadcraft
From Time On The Road

Driveline Angle Analyzer


2-Piece Main Driveline with 2 Axles (Corrected)




Trans




#1 Prop Shaft



#2 Prop Shaft



D Axle



R Axle

Good

Vehicle Information:

| | |
|----------------------------|-----------------------|
| Truck Unit # | APR |
| Plate Name | Millington 1000100000 |
| Plate Number | 100 |
| Truck Manufacturer | Isuzu |
| Truck Model | 100000 |
| VIN # | 1000 |
| Truck Model # | 1000 |
| Truck Serial # | 1000 |
| Chassis Manufacturer | Isuzu |
| Chassis Size | 1000 |
| # of Chassis Springs | 1000 |
| Chassis Part # | 1000 |
| Engine Make/Model | 1000 |
| Wheel Base | 1000 |
| Shaft Axle Tire Size | 1000 |
| Drive Axle Tire Size | 1000 |
| Main Driveline Series | 1000 |
| Hydraulic Driveline Series | 1000 |
| Axle Manufacturer | 1000 |
| Axle Model # | 1000 |
| D-Head Serial # | 1000 |
| R-Head Serial # | 1000 |
| Vehicle Weight | 1000 |
| Vehicle VIN Data | 1000 |
| Tested By | 1000 |

Driveline Dimensions:

| Angle | Phase | Length (in) |
|----------------------|-------|-------------|
| Frame Angle: 0.00 | | |
| Trans Input: 1.00 | | |
| #1 Prop Shaft: -3.00 | 0 deg | 24.00 |
| #2 Prop Shaft: 3.00 | 0 deg | 24.00 |
| D Head Angle: -3.00 | 0 deg | 14.87 |
| Input Shaft: 2.27 | | |
| R Head Angle: 7.00 | | |

Driveline Results:

| Max Driveline RPM | RPM |
|-------------------|--------|
| Drive Input: | 27.25 |
| Output: | 25.04 |
| Trans to D-Head: | 236.71 |
| D-Head to R-Head: | 78.86 |
| Overall to Input: | 248.48 |

Torsional Acceleration

| Unit | Value | Result |
|------------------|---------|--------|
| Drive Input | 2100.00 | FAIL |
| Output | 2100.00 | FAIL |
| Trans to D-Head | 2100.00 | FAIL |
| D-Head to R-Head | 2100.00 | FAIL |
| Overall to Input | 2100.00 | FAIL |

Horizontal Acceleration

| Unit | Value | Result |
|------------------|---------|--------|
| Drive Input | 2100.00 | FAIL |
| Output | 2100.00 | FAIL |
| Trans to D-Head | 2100.00 | FAIL |
| D-Head to R-Head | 2100.00 | FAIL |
| Overall to Input | 2100.00 | FAIL |

Max Engine RPM

| Unit | Value | Result |
|------------------|---------|--------|
| Drive Input | 2100.00 | FAIL |
| Output | 2100.00 | FAIL |
| Trans to D-Head | 2100.00 | FAIL |
| D-Head to R-Head | 2100.00 | FAIL |
| Overall to Input | 2100.00 | FAIL |

Comment:

The user would then enter all the measurements entered on the work sheet.

Print (F5) Print as Page (F2) Cancel (Esc)

FIG. 19

Worksheet2.vi

Rock Hunter

Driveline Angle Analyzer

Place Main with Auxiliary and 2 Axles

Trans

Angle deg

21 Prop shaft

Angle deg

Length in

Phase (clicks/rev) 0 deg 90 deg

22 Prop shaft

Angle deg

Length in

Phase (clicks/rev) 0 deg 90 deg

23 Prop shaft

Angle deg

Length in

Phase (clicks/rev) 0 deg 90 deg

R-Head

Angle deg

K-Head

Angle deg

Frame

Angle deg

Before measuring Angles:

1. Check front and rear wheels
2. Phase them in NEUTRAL
3. Release parking brake

To Measure Driveline Length:
All drive shaft lengths are measured from the yoke end caps centers.

To Measure Component Angles:
Positive angles (+) = The end closest to the front of the vehicle is higher than the end furthest from the front of the vehicle.

To check Driveline Phasing:
Driveline Phase is Zero degrees when the yoke end caps are aligned.

Driveline Phase is 90 degrees when the yoke end caps are not aligned.

Trans Serial #

Fleet Name

Fleet Account #

Track Manufacturer

Track Model

VIN #

Trans Model #

Steer Axle Tire Size

Drive Axle Tire Size

Main Driveline Series

Interaxle Driveline Series

Auxiliary Trans Model #

Auxiliary Trans Serial #

Vehicle Mileage

Vehicle Build Date

Tested by

Print **Cancel** **ESC**

FIG. 20

Worksheet2.vi

Front

Driveline Angle Analyzer

6X6

Before measuring Angles:

1. Check front and rear wheels
2. Place trans in NEUTRAL
3. Release parking brake

Measurement Directions:

To Measure Driveline Length:

All drive shaft lengths are measured from the yoke end cap centers.

To Measure Component Angles:

Positive angles (+) - The end closest to the front of the vehicle is higher than the end furthest from the front of the vehicle.

To check Driveline Phasing:

Driveline Phase is Zero degrees when the yoke end caps are aligned

Driveline Phase is 90 degrees when the yoke end caps are not aligned

Print **Cancel** **Esc**

Truck Unit # **Steer Axle Tire Size** **D-Head Serial #**

Fleet Name **Drive Axle Tire Size** **T-Cross Model #**

Fleet Account # **Clutch Size** **T-Cross Serial #**

Truck Manufacturer **# of Clutch Springs** **Vehicle Mileage**

Truck Model **Clutch Description** **Vehicle Build Date**

VIN # **Engine Type** **Asic Manufacturer** **Tested by**

Truck Model # **Wheel Base**

FIG. 21